

MEDICINE

Avoiding TB Relapses

Tuberculosis patients treated with the new drugs may, in the future, take medicines for the rest of their lives to prevent relapses due to residual germs.

➤ IN THE future, tuberculosis patients who recover under treatment with the new TB-fighting drugs may go on taking their medicines for the rest of their lives. The object would be to prevent relapses of the disease.

This new idea in the fight against the white plague is now being tried by 52 patients at Montefiore Hospital, New York, and the hospital's Westchester Division at Bedford Hills, N. Y. The trial is being made under the direction of Drs. Alfred S. Dooneief and K. Eileen Hite.

It is never certain, the doctors point out, that all TB germs have been removed from a patient when a badly involved lung lobe or piece of lung has been cut out. There may still be foci of germs that could not be seen with X-rays or felt by the surgeon while operating.

It cannot be assumed, either, that these foci of germs are completely sterilized by any arbitrary period of drug treatment. And so long as they are present, there is always the danger of their sparking a relapse.

However, very long time, perhaps lifetime, treatment with the modern medicines

may really rout the germs or hold them at bay enough to prevent any relapse. Drug treatment for TB has now reached the point where this idea seems worth trying, Drs. Dooneief and Hite think.

The 52 patients making the trial range in age from 14 to 64. Some have minimal, some moderately advanced and some far advanced tuberculosis. They have been getting streptomycin, PAS (para aminosalicylic acid) and isoniazid in various combinations for periods from 13 months to 32 months.

This drug treatment will be continued indefinitely after the patients are discharged from the hospital and go back home and to full time activity at work or school or elsewhere.

The duration of treatment will be limited, according to present plans, only by the patient's willingness to go on taking the medicines, signs of drug toxicity and germ resistance.

So far, no patients have relapsed and all have been willing to go on taking the medicines. Resistance of the germs has not yet become a problem.

Drug side-effects have been observed more frequently as treatment is prolonged, but to date, "and up to three years of treatment, they have not been serious in comparison with the risks of the infection itself."

The study is described in medical detail in the *American Review of Tuberculosis* (Aug.).

Science News Letter, August 14, 1954

AERONAUTICS

Climax Inspection Tests By Checking Jet in Dark

See Front Cover

➤ CLIMAX to the inspection tests made before acceptance of jet engines is checking the afterburner's operation in the darkened chamber at North American Aviation's newest sound abatement facility.

The bright bar of the afterburner's flame is shown cutting through the dark in the photograph on the cover of this week's SCIENCE NEWS LETTER.

Technicians operate and inspect the engines behind two observation windows constructed of four panels of bullet-proof glass in a control room to the side of the abatement chamber.

The new facilities will be used in ground operations of the F-100 Super Sabre, first production airplane capable of flying above the speed of sound in level flight.

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TECHNOLOGY

Parachute System For Dropping Cargo

➤ A PUSH-BUTTON parachuting system has been developed that enables a transport pilot to drop as much as 20 tons of cargo by pressing a button in his cockpit.

The device uses two aluminum alloy platforms, nine by 24 feet and nine by 15 feet, which are dragged, fully loaded, out of the rear of the cargo plane by extraction parachutes released by a cockpit button.

When the first of the cargo platforms has cleared the plane, several large parachutes open and lower the cargo safely. The second platform is dropped in the same manner a few seconds after the first.

When the chutes hit the earth, the aluminum platforms' special shock absorbing devices help protect the cargo from the impact.

The dropping device was developed by Lockheed Aircraft Corporation engineers for the USAF C-130 turbo-prop assault airplane, but can be used with slight modification in other cargo aircraft.

Science News Letter, August 14, 1954

MEDICINE

Hope Vaccine Will Give World-Wide Polio Check

➤ CHILDREN IN North America, South America and all around the world will be vaccinated against poliomyelitis if the Salk vaccine, currently on trial in the United States, proves effective.

The plan for world-wide control of polio by vaccination appeared in a report by Dr. Hart E. Van Riper of the National Foundation for Infantile Paralysis at the Fourth Pan American Congress of Pediatrics in Sao Paulo, Brazil.

He said that the present vaccine may not provide complete protection against the onset of the disease or against some muscular involvement. However, it is expected to "so modify the course of the disease that residual paralysis is greatly diminished."

Basic to the present stage of vaccine development is the tissue culture method. Dr. Van Riper called this "the shining new tool of poliomyelitis diagnosis and research."

"Without it," he said, "we could not now hope, within a relatively few years, to control poliomyelitis in North America, South America and throughout the world by active immunization with safe and effective vaccines."

Tissue culture methods have been employed for many years, Dr. Van Riper said. A giant step in its application to the problem of poliomyelitis was taken scarcely five years ago by Dr. John F. Enders and his associates of Harvard University when they showed that the poliomyelitis virus could be grown on non-nervous tissue. Tissue-cultured virus is the starting point of the Salk formalinized, "killed-virus" vaccine now being tested.

Science News Letter, August 14, 1954



CARING FOR ALGAE—Dr. Lois Farquarson is in charge of maintenance over this summer of Indiana University's large collection of algae, the simple green plants that have recently assumed scientific and economic importance. The plants are cultivated in tubes exposed to fluorescent bulbs in a room kept at a constant, cool temperature.